Halbleiterdetektor für kurzwellige Strahlung und Verfahren zu dessen HerstellungHalbleiterdetektor für kurzwellige Strahlung und Verfahren zu dessen Herstellung

Patent number: DE4407730

Publication date: 1995-09-14

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Classification:

- International: H01L31/102; H01L31/0232; A61N5/06; G01J1/42; A61B6/10

- european: A61N5/06W4; G01J1/42V; H01L31/105; H01L31/113

Application number: DE19944407730 19940308

Priority number(s): DE19944407730 19940308

Also published as:

WO9524738 (A1)

Abstract of **DE4407730**

A semiconductor detector for short-wave radiation is disclosed, in particular in the UV range, as well as a process for producing the same. Known semiconductor detectors for the UV range have the disadvantage of detecting with considerable difficulty a narrow band of wavelengths in a wavelength range lower than approximately 350 nm. The disclosed semiconductor detector allows on the contrary such radiation to be detected with high sensitivity in a narrow band. The detector consists of a substrate that bears on its front side a semiconductor layer. The substrate and the semiconductor layer are either electrically insulated from each other by an intermediate layer or the substrate itself consists of an insulator. The photodetector components are arranged next to each other in the semiconductor layer as differently doped areas and the active detector volume. The active detector volume extends over the whole thickness of the semiconductor layer, and the thickness of the semiconductor layer is set to correspond to the depth of penetration into said layer of the radiation to be detected. The semiconductor detector may be used for example as a detector of the erythema-causing skin irritability threshold by UV radiation.